METHODS AND SYSTEMS FOR BUSINESS-TO-BUSINESS
SOURCING SERVICES

5   This application claims the benefit of U.S. Provisional Application No. 60/214,857 filed June 28, 2000 entitled "Method and Systems for Business-to-Business Sourcing Services."

Field of the Invention

10   The preferred embodiments of this invention relate to methods and systems for worldwide sourcing services and facilitating transactions for business-to-business commerce.

Summary of the Invention

The preferred embodiments of the invention utilize the worldwide web to

15   provide automated interactive marketing systems that enable immediate access to Sellers worldwide that meet a Buyer's requirements. Buyers are connected with Supplier-Sellers from all around the world who can meet the precise requirements of the Buyer. Sellers are connected with Buyers from all around the world whose needs precisely match the Seller's capabilities.

20   A significant feature of the preferred embodiments of the invention is that the Buyer needs only to enter a request for quote (RFQ) and the systems and methods of this invention automatically connect the Buyer to Sellers having the capability to produce the item specified in the RFQ. The result is efficient and effective sourcing throughout the world.

25   ## Brief Description of the Drawings

Figure 1 illustrates the global coverage provided by the preferred embodiments of the invention for Buyers.

Figure 2 illustrates the global coverage provided by the preferred embodiments of the invention for Sellers.

30   Figure 3 is an overall block diagram illustrating the manner in which multiple databases provide a Unique Community Identifier (UCI) for each Buyer and Seller.

Figure 4a is an overall flowchart from the Buyer's side.

Figure 4b is an overall flowchart from the Seller's side.

Figure 5 is a flowchart illustrating the comparison of the Seller's UCI with RFQs stored in the RFQ database.

Figure 6 illustrates the data included in the UCI - Company Metrics - General database;

Figure 7 is an illustrative example of a flow chart for UCI - Company Metrics - Member Capability Edits;

Figure 8 illustrates the data collected and stored for UCI - Company Default Settings;

Figure 9 illustrates the data collected and stored for the UCI - Company Default Settings - Supplier Selection - Preferred Vendor List;

Figures 10a and 10b illustrate the data collected and stored for the UCI - Company Default Settings - Supplier Selection - Exclude Vendor List;

Figure 11 illustrates the data collected and stored for UCI - Personal User Metrics - General;

Figure 12 illustrates the data collected and stored for UCI - Personal User Metrics - New Member Training;

Figure 13 illustrates the data collected and stored for UCI - Personal User Metrics - New Member Testing;

Figure 14 illustrates the data collected and stored for UCI - Personal User Metrics - Proprietary Rating System - Buyer;

Figure 15 illustrates the data collected and stored for UCI - Personal User Metrics - Proprietary Rating System - Seller;

Figure 16 illustrates the data gathered and stored for UCI - Personal User Metrics - User "Best Value" Criteria;

Figures 17a and 17b illustrate the data gathered and stored for the UCI - Personal User Metrics - Supplier Selection - Preferred Vendor List;

Figure 18 illustrates the data collected and stored for the UCI - Personal User Metrics - Supplier Selection - Exclude Vendor List;

Figure 19 illustrates the data collected and stored for UCI - Personal User Metrics - Buyer Basic Purchase Criteria;

Figure 20 illustrates the data collected and stored for UCI - Personal User Metrics - Member Usage Options;

Figure 21 illustrates the data collected and stored for UCI - Personal User Metrics - Buyer Default Options for Seller Qualifications;

Figure 22 illustrates the data collected and stored for UCI - Personal User Metrics - Seller Default Options for Buyer Qualifications;

Figure 23 illustrates the data collected and stored for UCI - Personal User Metrics - Don't Show Feature;

Figure 24 illustrates the data collected and stored for UCI - Supervisory Detail;

Figure 25a illustrates the data collected and stored for UCI - Security Data;

Figure 25b illustrates the data collected and stored for UCI - Security Data, Company Administration;

Figure 26 is a flow chart illustrating the user's capability to change profile data easily and effectively;

Figure 27 is a flow chart illustrating the manner in which company profile data is edited;

Figure 28 is an exemplary screen shot of an illustrative bid history;

Figure 29 is an exemplary screen shot of Bid Detail available to Buyers;

Figure 30 is a flow chart illustrating the manner in which Buyers rate Sellers;

Figure 31 is a flow chart illustrated this manner in which Sellers rate Buyers;

Figure 32 is a flow chart illustrating the manner in which the RFQ Historical Database is used by Sellers to locate Buyers of similar components;

Figure 33 is a flow chart illustrating the manner in which the RFQ Historical Database is used by Sellers to review historical pricing for similar components;

Figure 34 is a flow chart illustrating the manner in which the RFQ Historical Database is used by Buyers to locate Sellers of similar components;

Figure 35 is a flow chart illustrating the manner in which the RFQ Historical Database is used by Buyers to review global historical pricing for similar components;

Figures 36a and 36b are flow charts illustrating the manner in which a Buyer posts a request for quote (RFQ);

Figure 37 is a flow chart illustrating the manner in which a photograph of a component is archived;

Figure 38 is a flow chart illustrating the manner in which part and process descriptions are stored for each component;

Figure 39 is a flow chart showing the listing of RFQs for Buyers;

Figure 40 is a flow chart illustrating the listing of available RFQs for Sellers;

Figure 41 is an exemplary screen shot showing a Seller the open RFQs available for bidding;

Figure 42 is a flow chart illustrating the notification of bid closure;

Figure 43 is a chart illustrating the information stored in the member profile;

Figure 44 is a flow chart illustrating targeted advertising to members meeting specific criteria;

Figure 45 is a flow chart illustrating the collection of data into a Member Usage History Database;

Figure 46 is a flow chart illustrating the manner in which certain member data is verified; and

Figure 47 is a flow chart illustrating membership tracking.

Detailed Description of the Preferred Embodiments

The methods and systems of the preferred embodiments of this invention provide global coverage for both Buyers and Sellers. By way of example, as illustrated in Figure 1, a single Buyer 100 located in the U.S.A. can instantly send out a request for quote (RFQ) for manufacture of a component 102 all over the world. However, as described below, this RFQ is not "broadcast" to a general group of Sellers. Rather, the arrows 104 are directed only to Sellers having the specific capability to produce component 102. In the preferred embodiments, the member Sellers have the option of having an email "Notice of New RFQ" sent to them each time an RFQ is submitted for which they are a qualified Seller.

Each member Seller can, by a few clicks (typically two) into the system web site, view open RFQs. As depicted in Figure 2, a qualified Seller 110 can instantly view

-4-

all open RFQs that the system has automatically determined that Seller 110 meets all of the particular criteria selected by one or more Buyers (illustrated by arrows 112). As shown, each Buyer 112 has a particular component 114, 116, 118, 120 and 122 for which the respective Buyers are desirous of receiving quotations from qualified Sellers.

The multiple function provided by the systems and methods of this invention are illustrated in Figure 3. This figure illustrates the overall block diagram of the system. Multiple databases 130 (described below) store data collected from member Buyers and Sellers. Such data includes: Company Metrics, Company Default Settings, Personal User Metrics, Supervisory Detail, Security Data. Each member's Capabilities and Capacities are defined.

As shown in Figure 3, Buyers post Request for Quotes (RFQ) to the system web site 140. The RFQ data entry is illustrated in Figures 36a and 36b and includes Buyer requirements for the Seller, Contract Specifications, Drawings, Specifications, and Component Photographs. Buyers have the option of using only their Preferred Vendors, a combination of Global Vendors and the Preferred Vendors, or Global Vendors. The system also accommodates the use of a Vendor Exclusion List. Buyers can select Exclude Geographic Areas for potential Sellers.

Each RFQ advantageously contains photo(s) of the component listed. See the flow chart of Figure 37. A "File Photo" can be used if a picture is not available. The system also maintains a large database of component photographs that can be used to indicate a similar part.

A feature of this invention is that it greatly facilitates international sourcing of goods by reducing the confusion inherent in difficult naming conventions. Thus, items such as screws, bolts, fasteners, wood screws, machine screws, carriage bolts are all similar products. This system provides photos with product listings to reduce confusion. As shown in Figure 38, major manufacturing processes are listed for each component to aid in the manufacturing process description in the RFQ.

The system automatically returns a list of potential Sellers. The Buyer then has the opportunity to Select or Deselect Sellers. Submitting the Supplier List makes the RFQ immediately available to all Selected Sellers.

Sellers can efficiently review the RFQs and make decisions to Quote or not Quote. Sellers can easily view the RFQ, Contract Specifications, Drawings, and Specifications online. Sellers can then download the RFQ, Contract Specifications, Drawings, and Specifications.

5 Bidding is done online. The Seller has access to competitor pricing via a real time pricing chart. Bids are easily entered. The Bid Process is simple and effective. A Bid calculator is provided on the "Bid Detail" page of the Web site. New bid prices can be directly input or price may be calculated as a percentage above or below the current lowest price. Prices may be changed at any time during the quotation period. A bid

10 may also be canceled at any time.

The Buyer has access to all pricing as well as Seller information. Seller information includes the Seller's Profile, Quality Rating Data, and a link to the Seller's Web Page.

All Bid Data is stored in the RFQsolutions Historical Library. This database

15 facilitates marketing research and targeted advertising and marketing.

The bidding data collected from Buyers and Sellers are discussed in detail below and are advantageously quite detailed such that the criteria collected provides a Unique Community Identifier (UCI) for each Buyer and Seller.

A flowchart depicting the overall operation of the systems and methods of a

20 preferred embodiment of the invention from the Buyer's side is illustrated in Figure 4a. As illustrated, a plurality of databases store the information for interested qualified Sellers with RFQs posted by Buyers. These databases include a UCI Database 150, RFQ Database 152, Member Database 154, Proprietary Rating Database 156, and Historical Database 158.

25 A flowchart depicting the overall operation of the systems and methods of a preferred embodiment of the invention from the Seller's side is illustrated in Figure 4b.

The UCI Database 150 is designed to be a very comprehensive database of manufacturing companies worldwide including their sales volumes, process capabilities and industries and markets served. Figures 6, 8, 9, 10a, 10b, 11, 12, 13, 14, 15, 16, 17a,

30 17b, 18, 19, 20, 21, 22, 23, 24, 25a, 25b, illustrate in detail the data collected in the preferred embodiments of the invention.

Figures 7, 26, 27 are flow charts illustrating editing of the stored data.

Figure 5 depicts the manner in which a Seller in the UCI Database 150 is compared with the RFQs stored in the RFQ Database 152 to produce a listing of all RFQs that match the Seller's Capabilities. A flow chart showing the RFQ seller function is illustrated in Figure 40. A representative screen shot showing the Open Job Listing made available to a qualified Seller, with photographs of the components, is illustrated in Figure 41. Similar screen shots are made available for the Buyers as illustrated by Figure 35.

In the preferred embodiments, the Sellers have real time price data available for each RFQ. Advantageously, the dynamic pricing model provides the following information:

Buyers see:

All Pricing in Chart Form

All Seller's complete Profile

All Seller's Quality Ratings

All Seller's Web sites

All tariffs, duties and shipping costs

Past purchases for identical components

Historical transactions for similar components

Seller's see:

All Pricing in Chart Form

Buyer's complete Profile

Buyers Web site

Buyer's Quality Rating

Buyer's "Best Value" Criteria

Links to determine tariffs, duties and shipping costs

Historical transactions for similar components

The Pricing Chart is Updated Dynamically as Bids are received by RFQsolutions

A pricing calculator is provided to aid in pricing calculations

"X" percent higher than lowest bid

"X" percent lower than lowest bid

"X" percent higher than seller's last bid

"X" percent lower than seller's last bid

Direct entry of Price

5   As shown in Figure 28, all competitor bid prices are shown. Bid prices can easily be entered and can be updated by Sellers right up to the time of Bid Closing. Advantageously, the main system clock is the reference for time worldwide to avoid confusion. Advantageously, a price calculator is provided to make price updates effortless. Prices can be calculated above and below the then lowest bid price. Prices

10   can also be entered directly.

As shown in Figure 29, Buyers also have real time price data available for each RFQ. Buyers also have real time price data available for each RFQ. Buyers additionally have access to all bid detail. Details for all bids are listed and ranked by a number of parameters including; Price, Best Value, Quality Rating, Delivery Rating,

15   Price Rating and Geographic Location. Links are provided to the Seller Profile and Seller Web site to aid in purchase decisions.

As illustrated in Figures 30 and 31, Buyers and Sellers are encouraged to rate each other at the conclusion of each transaction. Buyers are rated as to Quick Pay, Slow Pay, Pay per Terms, and Quality of Experience. Sellers are rated as to Quality,

20   Delivery, Landed Price, and Quality of Experience.

The Buyer can select "Best Value" Weighting Criteria for:

Quality Rating

Delivery Rating

Landed Price Rating

25   Quality of Experience Rating

Best Value is used to rank seller quotations. Rankings include:

Pricing Only

Seller Country, and Price Only

Seller Country, and Best Value Rating

30   Best Value Rating

Quality Rating

Delivery Rating

Landed Price Rating

Quality of Experience Rating

Seller can view the Buyer "Best Value" Criteria during the bid process.

5   The historical transaction database provides detailed information on:

World Trade

Shifts in Purchasing Trends

Global Manufacturing

Worldwide Pricing

10   Activity & Capabilities

Purchasing Data by:

Country: Day, Week, Month, Year

Industry: Day, Week, Month, Year

Figure 32 is a flow chart illustrating use of the RFQ Historical Database 152 by

15 Sellers for locating Buyers of similar components. The RFQ Historical Database 152 can also be used by Buyers to locate Sellers of similar components as shown in Figure 34.

Both Sellers and Buyers can advantageously use the RFQ Historical Database for reviewing global historical pricing for similar components. See Figures 33 and 35.

20   Another feature of this invention is that it assists its member Sellers to compete in the global economy. Thus, unsuccessful Sellers who have bid on RFQs are subsequently notified with certain information relating to the contract award decision as illustrated by the flow chart of Figure 42. Advantageously, member Sellers are notified by e-mail and a record is available at the system web site indicating the factors

25 influencing the Buyer's decision listed in Figure 42, including quality, delivery, price and geography.

Another advantage of the invention is that it promotes building trust relationships between Buyers and Sellers. Thus, as illustrated in Figure 43, the system provides very detailed information about its membership. Advantageously, the Member

30 Profile provides a standardized view of each member company, with links to the member's Web site and quality rating.

An additional feature of this invention, illustrated by the flow chart of Figure 44, is that the UCI Database 150 enables the member company to provide advertising to only those members who meet very specific criteria. By way of specific example, in the case of a machine shop, the system can limit advertising to only those member companies that have a certain type and model of equipment.

Referring to the flow chart shown in Figure 45, the system advantageously includes a Member Usage History Database 160 to track member usage including:

Track number of days logged on

Track number of RFQs posted

Track number of RFQs Bid

Track use of added value components

Track types of advertising viewed

Such usage history may be used in further marketing efforts and for tracking system effectiveness and development of new features.

The preferred embodiments of the invention advantageously require that certain member data must be verified before the Buyer is allowed to post an RFQ or a Seller is allowed to bid. The flow chart of Figure 46 illustrates a preferred system for making this check automatically.

The flow chart of Figure 47 illustrates a system for tracking all current members, past members as well as past members who participated in a trial membership program. This information is stored in the membership database 154. This system allows for providing access on a free or a lower fee basis for an initial trial basis and also precludes a member from continuously trying the system on a trial basis.

The "Don't Show Feature" of Figure 23 is used to minimize data presented to the user each time he/she views "Available RFQs." A "Don't Show this RFQ Again" check box is displayed with each "available RFQ." The system database stores this information so that the next time the user views "Available RFQs," all RFQs with the "Don't Show" Feature checked will not be shown. This feature significantly reduces visual clutter for the user.

Chat Rooms are advantageously made available to share technical information and provide access to industry experts for problem solving.

-10-

Advantageously, the system automatically tracks the member's profile so that if a profile hasn't been updated in a predetermined passage of time, the member is contacted.

Representative industries that will benefit from this invention include:

Aerospace/Aircraft

Agricultural

Appliance

Automation

Automotive (OEM)

Automotive (Tier I)

Business Mach./Equip.

Chemical

Computer

Construction

Consumer Electronics

Consumer Packaged Goods

Consumer Products

Contract Manufacturing

Controls

Durable Goods

Electronic/Electric

Energy

Engineering

Exploration/Production

Fabricated Metal Industry

Food

General Retail

Hydraulic/Pneumatic

Industrial Systems/Controls

Industrial/Commercial

Machinery/Equipment

Instrumental

(Measure/Control/Test/Analyze)

Lighting

Manufacturing/Industrial

Medical Equipment

Medical/Healthcare

Metals

Military/Defense

Mining Equipment

Mold Makers

Nuclear

OEM

Optical Components

Packaging

Paper/Paperboard

Petroleum

Plastics

Power Generation

Primary Metal Industry

Recreational +

Semiconductor

Service

Telecommunications

Textile

Tool & Die

Transportation Equipment

Utilities

Wood/Furniture

Representative specific markets that will benefit from this invention include:

Precision Machined Products

Manufacturers (Primary Function - Buyer)

Machinery Manufacturers

Machine Tool Manufacturers

Steel Manufacturers

Tubular Manufacturers

5 Valve Manufacturers

Fastener Manufacturers

Aerospace Manufacturers

Machinery & Equipment Manufacturers

Implement Manufacturers

10 Builders Hardware Manufacturers

Loading & Elevating Equipment Manufacturers

Power Generating Equipment Manufacturers

Machine Tool Manufacturers

Equipment Manufacturers (agricultural, construction, forestry, materials

15 handling & utility equipment)

Valves & Actuators Manufacturers

Safety Equipment Manufacturers

Builders Hardware Manufacturers

Agricultural Equipment Manufacturers

20 Barbecue Manufacturers

Marine Equipment Manufacturers

Can Manufacturers

Cleaning Equipment Manufacturers

Home Appliance Manufacturers

25 Office Furniture Manufacturers

Health Industry Manufacturers

Manufacturers of Emission Controls

Primary Metal Industries

Fabricated Metal Products

30 Industrial & Commercial Machinery Manufacturers

Transportation Equipment Manufacturers

Air & Gas Compressor Manufacturers

General Purpose Machinery manufacturing

Machine Tool Accessory Manufacturing

Fluid Power Cylinder and Actuator Manufacturing

Fluid Power Pump & Motor Manufacturing

Fluid Power Valve & Hose Fitting Manufacturing

Industrial Pattern Manufacturing

Industrial Truck, Tractor, Trailer and Stacker Machinery Manufacturing

Industrial Valve Manufacturing

Marking Device Manufacturing

Measuring and Dispensing Pump Manufacturing

Pump Manufacturing

Oil & Gas Field machinery and Equipment Manufacturing

Valve & Pipe Fitting Manufacturing

Metal Working Machinery Manufacturing

Packaging Machinery Manufacturing

Plastics & Rubber Industry Machinery Manufacturing

Paper Industry Machinery Manufacturing

Printing Machinery & Equipment Manufacturing

Pump & Pumping Equipment Manufacturing

Sawmill & Woodworking Machinery Manufacturing

Scale & Balance Manufacturing

Die & Tool, Die Set, Jig, and Fixture Manufacturing

Spring Manufacturing

Textile Machinery Manufacturing

Transportation Equipment Manufacturing

Construction Equipment Manufacturing

Hardware Manufacturing

Mechanical Power Transmission Equipment Manufacturing

Mining Machinery & Equipment Manufacturing

Motor & Generator Manufacturing

Semiconductor machinery Equipment Manufacturing

Institutional Furniture Manufacturing

Precision Machined Products (Continued)

Manufacturers (Primary Function - Seller/Buyer)

5 Precision Manufacturing

Gear Manufacturers

Metal Forming

Fluid Power

Metal Stamping

10 Metal Fabricators

Machined Products

Tooling and Machining

Metal Fabrications

Precision Machined Products

15 Precision Metal Forming

Tooling & Manufacturing

Paint and Coatings

Metal Finishing

Metal Working

20 Precision Machining

Honing

Water Cut Equipment

General Machining

Fabricators

25 Sheet Metal Fabricators

Stamping

Fine Blanking

Rolled Steel Products

Screw Machine Shops

30 Notching Equipment

Thread Rolling

Cold Heading

Cold Forging

Inspection Services

Heat Treat; Conditioning

5 **Tool & Die**

Tool & Die

EDM Shops

Injection Molds

Mold Builders

10 **Abrasive Machining**

O.D. Grinding

I.D. Grinding

Centerless Grinding

Jig Grinding

15 Lapping

Primary Materials

Foundries

Metal Casting

Die Casting

20 Rotational Molders

Sintered Metal Manufacturers

Powder Metallurgy Part Manufacturing

Forging

Cast Metals

25 Investment Casting

Metal Casting

Sand Casting

Extrusion

30